

Patent claims

1.-4. (cancelled)

5. (new) A device for diagnosing obstructions in channels of a micro heat exchanger, comprising:

at least one temperature sensor arranged on an outside of the micro heat exchanger; and

an evaluation unit connected to the at least one temperature sensor, wherein the

evaluation unit diagnoses an obstruction on the basis of changes of a measured temperature, wherein

entry parameters of fluids involved in the heat exchange are unchanged.

6. (new) The device according claim 5, wherein the device is a detachable arrangement.

7. (new) The device according claim 5, wherein the outside is an outer surface of the micro heat exchanger.

8. (new) A device for diagnosing obstructions in channels of a micro heat exchanger, comprising:

at least one temperature sensor arranged on an outside of the micro heat exchanger; and

a closed-loop control device connected to the at least one temperature sensor, wherein

the closed-loop control device regulates a mass flow of fluids involved in the heat exchange in the sense of keeping the measured temperature constant, and wherein

the closed-loop control device diagnoses an obstruction on the basis of changes in the mass flow.

9. (new) The device according claim 8, wherein the device is a

detachable arrangement.

10. (new) The device according claim 8, wherein the outside is an outer surface of the micro heat exchanger.

11. (new) A method for diagnosing obstructions in channels of a micro heat exchanger, comprising:

measuring a temperature of the micro heat exchanger at an outside of the micro heat exchanger; and

diagnosing an obstruction on the basis of changes of the measured temperature, wherein entry parameters of the fluids involved in the exchange of heat remain unchanged.

12. (new) The method according claim 11, wherein the measuring of the temperature is accomplished at at least one point on the outside of the micro heat exchanger.

13. (new) The method according claim 11, wherein the outside is an outer surface of the micro heat exchanger.

14. (new) A method for diagnosing obstructions in channels of a micro heat exchange, comprising:

measuring a temperature of the micro heat exchanger at an outside of the micro heat exchanger;

regulating a mass flow of one of the fluids involved in the heat exchange such that the measured temperature is constant; and

diagnosing an obstruction on the basis of changes of the mass flow.

15. (new) The method according claim 14, wherein the measuring of the temperature is accomplished at at least one point on the outside of the micro heat exchanger

16. (new) The method according claim 14, wherein more than one mass flows are regulated.

17. (new) The method according claim 14, wherein the outside is an outer surface of the micro heat exchanger.